

Customer No.: 31561  
Application No.: 10/708,371  
Docket NO.: 11955-US-PA  
Clean Version

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#### ABSTRACT OF THE DISCLOSURE

A power amplifier with an active bias circuit and operating method thereof are provided. The power amplifier comprises a power amplifier transistor and an active bias circuit. The active circuit receives input power and applies a bias voltage to the gate of the power amplifier transistor. The bias voltage will increase in correspondence with an increase in the input power. Therefore, the power amplifier of this invention has excellent output power, linearity of operation and power-added efficiency in a range of input power.

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